

EMILIA FOSBERGII, A NEW SPECIES.

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The genus Emilia is paleotropical with about 45 species. All neotropical specimens of Emilia studied by the author (F, GH, K, L, MO, NY, US) were referable to three species. One species, E. coccinea (Sims) G. Don from eastern Africa, is only rarely collected as an escape from gardens at relatively high elevations (1-2000 m) or latitudes. This species has orangish-red flowers which are only half enclosed by the involucre, entire or partially shallowly dentate leaf margins, and elongate corolla lobes 1.7-2.1 mm long.

The second species, E. sonchifolia (L.) DC. ex Wight from South Asia, is commonly collected in lowlands (0-1000 m). This species has light purple flowers which are completely enclosed in the involucre, strongly lyrate lower leaves, and short corolla lobes 0.5-0.7 mm long.

The third and most frequently collected species, here first recognized as distinct from all previously described species, is commonly collected at middle elevations, 100-1500 m. This species has red flowers which are three-quarters enclosed by the involucre, coarsely dentate leaves, and corolla lobes 1.2-1.4 mm long.

This taxon passed in the early literature under the name Emilia coccinea or its synonyms, i.e., it was identified with an African species. For example, all specimens cited by Baldwin in his paper on the cytology of neotropical Emilia (Bull. Torrey Bot. Club 73: 18-23. 1946) as E. coccinea are E. fosbergii (except one, Baldwin 4578, which is E. coccinea).

A major change occurred when Fosberg (Univ. Hawaii, Occas. Papers 46: 14. 1948) identified red-flowered Hawaiian collections with Emilia javanica (N. Burm.) C.B. Robinson. Fosberg was challenged by Koster (Blumea 7: 290. 1952) who pointed out that the Hawaiian red-flowered element does not occur in Java. Fosberg (Occas. Papers Bishop Mus. 23: 136. 1966) reported discovery of Burman's types in Geneva and maintained his earlier identification while suggesting that Burman's description was incorrect in its flower color and locality. This amounts to identifying the neotropical taxon with a South Asian taxon because the Hawaiian and neotropical materials are of the same taxon. Recently this identification has entered the neotropical literature (Vuilleumier, J. Arnold Arb. 50: 122. 1969, and Adams, Fl. Pl. Jamaica 757. 1972).

The present author stepped into this quagmire in early 1974 while innocently identifying a drawing of an Emilia sent by Ms. Penny Honeychurch of Roseau, Dominica. Dr. F. Raymond Fosberg was able to show me, a non-asterologist, how to identify neo-

tropical specimens of Emilia in three minutes. I was astonished to find that no one had clearly elucidated these three taxa and suggested a joint paper. After annotating many specimens from the neotropics as E. javanica, I made a second error, investigating what were the taxa in South Asia and the Pacific Islands. These studies have not been concluded but those who have taken an interest in the affair, F.R. Fosberg, C. Jeffery and C.D. Adams, have joined me in agreeing that the binomial E. javanica does not pertain to the neotropical taxon.

L.O. Williams' kind invitation to contribute Emilia for the Flora of Guatemala prompts the validation of a name for this previously unrecognized but commonly collected taxon. It is a pleasure to name the species in honor of my colleague, Francis Raymond Fosberg, who has had such a substantive part in the recognition of the taxon.

EMILIA FOSBERGII Nicolson, sp. nov.

Emilia coccinea sensu auctt., non (Sims) G. Don: Britton & Wilson, Sci. Survey Porto Rico & Virgin Isl. 6: 321. 1926; Baldwin, Bull. Torrey Bot. Club 73: 18. 1946; Gooding et. al., Fl. Barbados 436. 1965 (fig. 27, mislabelled E. sonchifolia, is this species).

Emilia sagittata sensu auctt. pro parte, non DC.: Standley, Field Mus., Bot. 18: 1454. 1938; Alain, Fl. Cuba 5: 239. 1962.

Emilia javanica sensu auctt., non (N. Burm.) C.B. Robinson: Fosberg, Occas. Papers Bishop Mus. 23: 136. 1966; Vuilleumier, J. Arnold Arb. 50: 122. 1969; Adams, Fl. Pl. Jam. 757. 1972.

Folia grosse dentata, 8-13 X 3-5 cm, inferiora petiolata, spathulata, superiora sessilia, sagittata. Pedunculi terminali, 15-30 cm longi, in 2-4 capitula terminans. Involucrum 11-15 mm longum, bracteis ca 7. Flosculi ca 50. Corollae typice latericiae, 9-10 mm, involucri ca 2-3 mm excedens, lobis corollarum 1.1-1.4 mm longis. Stamen cum parte superiora filamenti crassata, 0.5 mm longa, thecis 1.5-1.6 mm longis, appendiculis antherorum 0.3-0.4 mm longis. Achenia 4.0 X 0.6 mm longa, costulis intermediis inter sulcis interne puberulentibus sed non per colore differentibus.

Holotype: Bahamas, New Providence, near Nassau, 26 Dec. 1902, A. H. Curtiss 6 (US-428506). Isotypes: F, GH, MO, NY, US.

Paratypes (all in F, GH, MO, NY, and US): U.S.A., Florida, Lee County, vicinity of Fort Myers, in pineland, 21 Mar. 1916, J. P. Standley 66. CUBA, Santiago Province, vicinity of Baracoa, "rays deep crimson," 24-29 Jan. 1902, C. L. Pollard et al. 17. JAMAICA, vicinity of Kingston, alt. 500 ft., 29 Jan. - 24 Feb. 1900, W. N. Clute 9. ST. CROIX, Constitution Hill, "flowers scarlet," 13 Dec. 1895. A. E. Ricksetter 150. BRAZIL, Amazonas, Manicore Municip. near Santa Fe, "flowers red," 8-11 Sep. 1934, B. A. Krukoff 6066.